

Energy Conservation Turbine (ECT™)

The Energy Conservation Turbine (ECT™) can be used by any industry that currently uses a pressure reduction station (PRS) in their steam supply system. The ECT™ is installed in parallel with the PRS, to extract energy from the steam as it expands rather than simply throttle it as done by the PRS. The steam turbines generate electricity from excess steam normally wasted by industrial boilers. This results in reduced use of fossil fuels and lower emissions of greenhouse gases. TurboTech supplies its turbines to a range of processing industries including food and beverage, chemicals, paper, pharmaceuticals and agriculture.



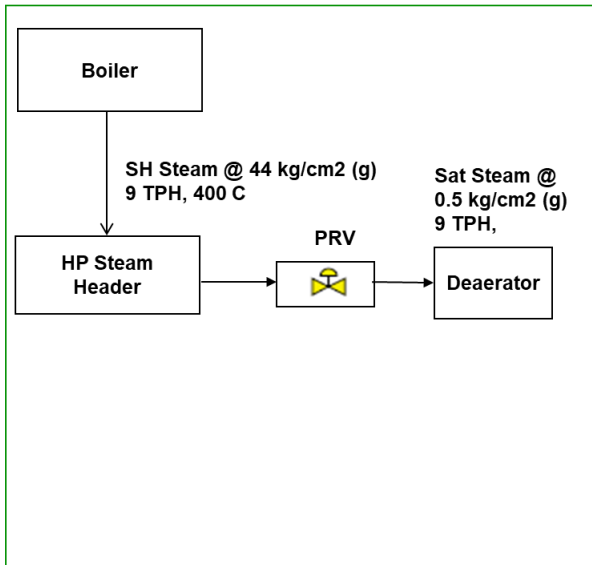
3 MW Capacity ECT™ at Water Incineration plant in South Korea

Advantage of ECT™

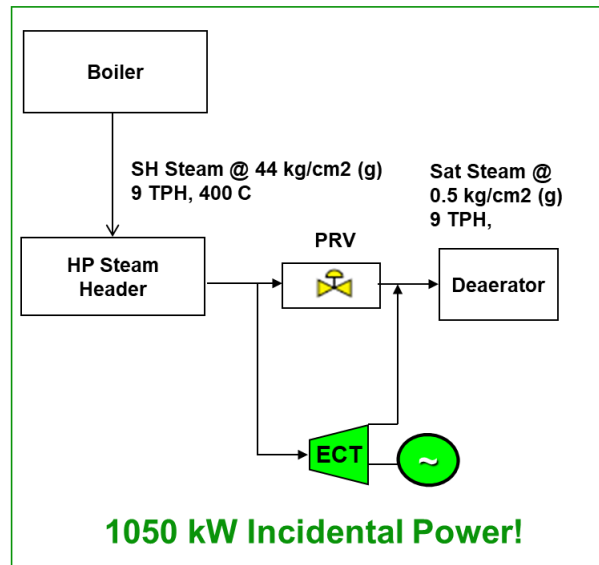
- Customized design with maximum efficiency for a given steam parameters.
- No dependence on Imported spares
- Low Noise, High efficiency gear box
- PLC based control system
- Simple to operate fit and forget
- Single stage impulse turbine, for enthalpy drops up to 200 kJ/kg
- Design to suit saturated steam
- Flexible coupling for easy alignment of Turbine and generator.

Paper & Pulp Industry:

BEFORE ECT



AFTER ECT



Energy Savings:

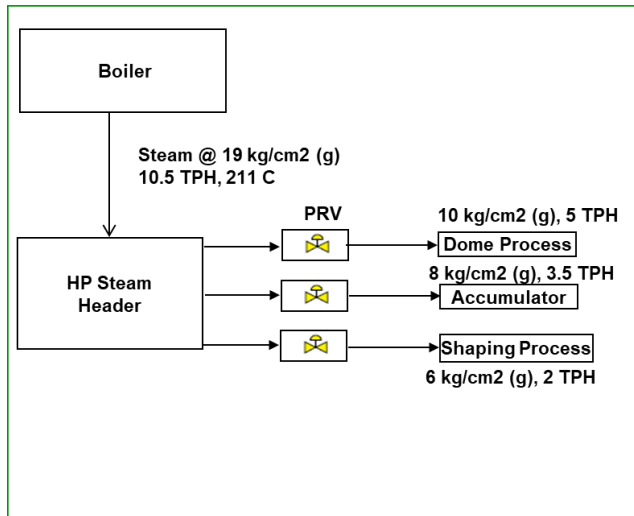
Electricity Units Saved per Hour	:	1050 kW
No of days of operation Per Year	:	330 Days Per Annum
Electricity Units Saved Per Year	:	~ 83,16,000 Units Per Annum

Cost Savings:

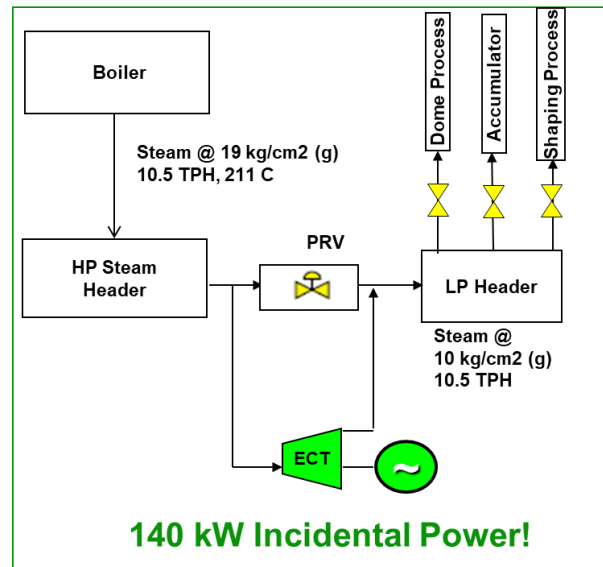
Electricity Cost per unit	:	\$ 0.092/KWh
Total Cost Savings per year	:	\$ 767,630 per annum

Tyre Industry:

BEFORE ECT



AFTER ECT



Energy Savings:

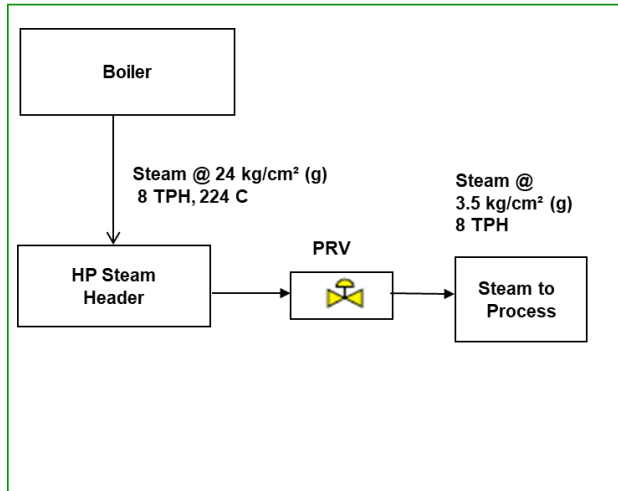
Electricity Units Saved per Hour	:	140 kW
No of days of operation Per Year	:	330 days per annum
Electricity Units Saved Per Year	:	~ 9,25,000 Units Per Annum

Cost Savings:

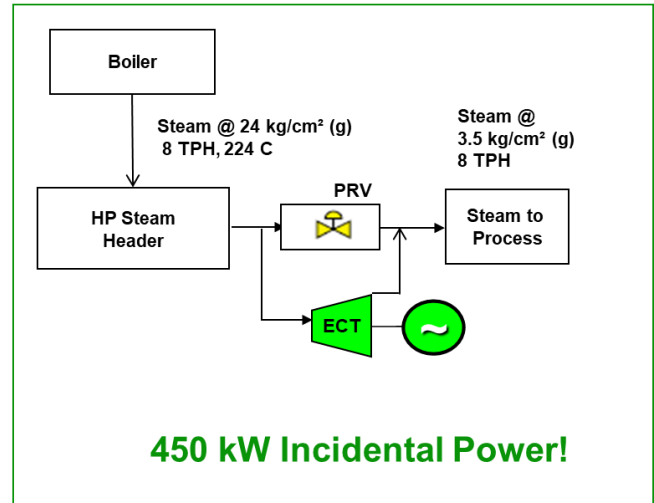
Electricity Cost per unit	:	\$ 0.1/kW
Total Cost Savings per year	:	\$ 92,500 per annum

Oil Refinery:

BEFORE ECT



AFTER ECT



Energy Savings:

Electricity Units Saved per Hour	:	450 kW
No of days of operation Per Year	:	300 Days Per Annum
Electricity Units Saved Per Year	:	~ 32,40,000 Units Per Annum

Cost Savings:

Electricity Cost per unit	:	\$ 0.092/kWh
Total Cost Savings per year	:	\$300,000 per annum